



**TRANSMITTAL LETTER**  
**(General - Patent Pending)**

Docket No.  
121027-066

In Application Of: **Hiroaki TANIGUCHI**

| Application No. | Filing Date     | Examiner       | Customer No. | Group Art Unit | Confirmation No. |
|-----------------|-----------------|----------------|--------------|----------------|------------------|
| 09/941,096      | August 28, 2001 | Elizabeth COle | 35684        | 1771           | 5776             |

Title:  
**DISPOSABLE DIAPER**

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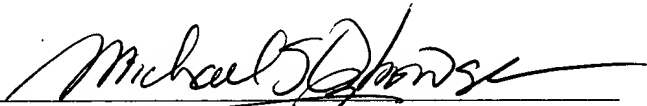
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**Appeal Brief (One Original and Two Copies)**  
**Brief Transmittal**  
**Fee Transmittal**  
**Return Receipt Post Card.**

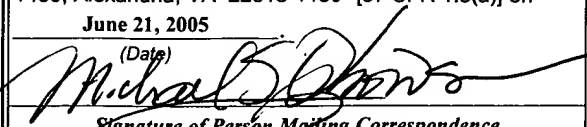
in the above identified application.

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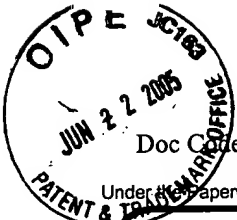
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Dated: **June 21, 2005**

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**June 21, 2005**  
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**Michael S. Gzybowski**  
Typed or Printed Name of Person Mailing Correspondence

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL  
for FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT (\$)** **\$500.00****Complete if Known**

|                      |                   |
|----------------------|-------------------|
| Application Number   | 09/941,096        |
| Filing Date          | August 28, 2001   |
| First Named Inventor | Hiroaki TANIGUCHI |
| Examiner Name        | Elizabeth Cole    |
| Art Unit             | 1771              |
| Attorney Docket No.  | 121027-006        |

**METHOD OF PAYMENT (check all that apply)**

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Deposit Account Number: 12-2136 Deposit Account Name: BUTZEL LONG

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.****FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES |                       | SEARCH FEES |                       | EXAMINATION FEES |                       | Fees Paid(\$) |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|---------------|
|                  | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)         | Small Entity Fee (\$) |               |
| Utility          | 300         | 150                   | 500         | 250                   | 200              | 100                   |               |
| Design           | 200         | 100                   | 100         | 50                    | 130              | 65                    |               |
| Plant            | 200         | 100                   | 300         | 150                   | 160              | 80                    |               |
| Reissue          | 300         | 150                   | 500         | 250                   | 600              | 300                   |               |
| Provisional      | 200         | 100                   | 0           | 0                     | 0                | 0                     |               |

**2. EXCESS CLAIM FEES**

| Fee Description                                    | Fee (\$)        | Small Entity Fee (\$) |
|--|-----------------|-----------------------|
| Each claim over 20 (including Reissues)            | 50              | 25                    |
| Each independent claim over 3 (including Reissues) | 200             | 100                   |
| Multiple dependent claims                          | 360             | 180                   |
| <b>Multiple Dependent Claims</b>                   |                 |                       |
| <b>Total Claims</b>                                | <b>Fee (\$)</b> | <b>Fee Paid (\$)</b>  |

- 20 or HP =        x \$50.00 = \$0.00

HP = highest number of total claims paid for, if greater than 20.

| Indep. Claims             | Extra Claims      | Fee (\$)        | Fee Paid (\$) |
|---------------------------|-------------------|-----------------|---------------|
| - 3 or HP = <u>      </u> | x <u>\$200.00</u> | = <u>\$0.00</u> |               |

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listing under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

| Total Sheets          | Extra Sheets           | Number of each additional 50 or fraction thereof | Fee (\$)          | Fee Paid (\$)   |
|-----------------------|------------------------|--|-------------------|-----------------|
| - 100 = <u>      </u> | <u>0</u> / 50 <u>0</u> | (round up to a whole)                            | x <u>\$250.00</u> | = <u>\$0.00</u> |

**4. OTHER FEE(S)**

Non-English specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief Transmittal**\$500.00****SUBMITTED BY**

|                   |                             |                                      |               |           |              |
|-------------------|-----------------------------|--------------------------------------|---------------|-----------|--------------|
| Signature         | <u>Michael S. Gzybowski</u> | Registration No.<br>(Attorney/Agent) | 32,816        | Telephone | 734-995-3110 |
| Name (Print/Type) | Michael S. Gzybowski        | Date                                 | June 21, 2005 |           |              |

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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AP/  
TFW



App No. 09/941,096

PATENT APPLICATION

*IN THE UNITED STATES PATENT AND TRADEMARK OFFICE*

Group  
Art Unit: 1771  
  
Attorney  
Docket No.: 121027-066  
  
Applicant: Hiroaki TANIGUCHI  
  
Invention: COMPOSITE SHEET  
  
Serial No: 09/941,096  
  
Filed: August 28, 2001  
  
Examiner: Elizabeth Cole

Certificate Under 37 CFR 1.8(a)

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on June 21, 2005

Michael S. Gzybowski

BRIEF ON APPEAL

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to Appellant's Notice of Appeal filed April 21, 2005 in connection with the above-identified application, Appellant submits the present Brief on Appeal.

06/23/2005 TBESHAH1 00000003 122136 09941096 REAL PARTY IN INTEREST  
01 FC:1402 500.00 DA

Appellant has assigned this application to Uni-Charm Corporation in an assignment which was executed by the inventor on November 11, 2001, and recorded in the United States Patent and Trademark Office on February 8, 2002 at Reel No. 012586 and Frame No. 0478.

### RELATED APPEALS AND INTERFERENCES

There are no related cases involved in any appeal procedures or Interferences.

### STATUS OF CLAIMS

Claims 1-19 are pending in this application. Claims 1-17 stand under Final Rejection, from which rejection of claims 1-17 this appeal is taken. Claims 18 and 19 stand objected to as being dependent upon a rejected base claim. There are no other claims pending in this application.

### STATUS OF AMENDMENTS

No Amendments after Final were filed in this application.

### SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a composite sheet 1 which, as discussed in the first full paragraph on page 5 of Appellant's specification, comprises a thermoplastic synthetic resin film 2 and a thermoplastic synthetic resin fibrous sheet 3.

As discussed in the second full paragraph on page 9 of Appellant's specification, the film 2 can be formed with any one of urethane-based thermoplastic elastomer resin and amide-based thermoplastic elastomer resin.

As disclosed in the first full paragraph on page 7 of Appellant's specification, the fibrous sheet 3 can be made of an elastically stretchable nonwoven fabric 3a obtained by melt spinning thermoplastic elastomer resin.

As discussed in paragraph bridging pages 6 and 7 of Appellant's specification, the film 2 is formed on its bottom surface with a plurality of bulgy zones 2a and substantially flat zones 2b each defined between each pair of the adjacent bulgy zones 2a. The bulgy zones 2a extend in parallel to one another.

As discussed in the second full paragraph on page 8 of Appellant's specification, each of the bulgy zones 2a has a width L1 of 0.2 - 2.0 mm and the maximum thickness L2 of 40 to about 150  $\mu\text{m}$ .

As discussed in the paragraph bridging pages 7 and 8 of Appellant's specification, film 2 is welded along the bulgy zones 2a to fibrous sheet 3.

As discussed in the paragraph bridging pages 7 and 8 of Appellant's specification, the composite sheet 1 has a moisture-permeability of 3000  $\text{g/m}^2 \cdot 24 \text{ Hr}$  or higher and a water-resistance of 49 hpa or higher. The moisture-permeability was measured in accordance with prescription of The Japanese Industrial Standards (hereinafter referred to as "JIS") L 1099A-2 method and the water-resistance was measured in accordance with prescription of JIS L 1092A method. The composite

sheet 1 presents a high moisture-permeability and simultaneously presents a high liquid-impermeability.

As shown in Fig. 2, the bulgy zones 2a are non-hollow and have a cross sectional shape than comprises a flat portion and a curved portion that extends outward from the flat portion.

Figure 5 depicts an embodiment in which two fibrous sheets are provided on opposite sides of a single film 2 and the bulgy zones have solid cross sectional shapes that comprise opposed curved portions.

#### GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 12, 14 and 16 stand rejected under 36 U.S.C. §112, first paragraph. "

Under this rejection the examiner has taken the position that the "[t]he specification as originally filed does not provide support for the limitation that the cross-section of the bulgy areas is non-hollow."

Claims 1, 2, 4, 9 and 10, 11, 13 and 15 stand rejected under 35 U.S.C. §102(b) as being anticipated by McCormack et al.

Under this rejection the examiner has relied upon McCormack et al. as disclosing:

...a laminate of two or more layers. One of the layers may be elastic. One of the layers may comprise a thermoplastic film and one may comprise a nonwoven fabric. The thermoplastic file may be breathable. See col. 4, line 53 - col. 5, line 65. The two layers are bonded together so that a plurality of bulges form continuously across the surface of the laminate. The bonds may be lines which extend in parallel across the laminate. See figure 1 and also col. 7, lines 1-3.

Claims 1-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over McCormack et al. in view of Thornton et al. in view of Reed et al.

Under this rejection the examiner has relied upon Thornton et al as teaching a polyurethane film having a specific WVTR.

The examiner has cited Reed et al. on page 3 of the Official Action of July 15, 2004 (referred to on page 2 of the Final Rejection) as being relied upon in combination with McCormack et al. and Thornton et al.

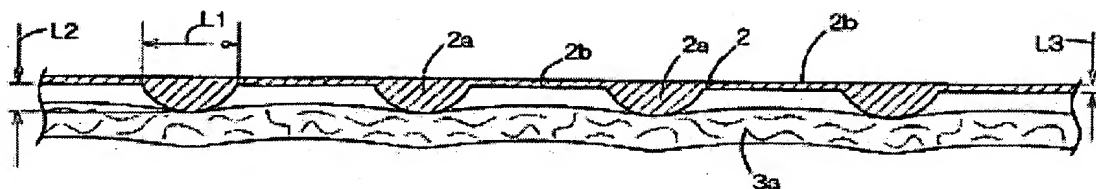
However, the examiner has not set forth any specific reliance upon Reed et al. nor any proposed modification of McCormack et al. based upon the teachings of Reed et al.

#### ARGUMENT

Claims 12, 14 and 16 stand rejected under 36 U.S.C. §112, first paragraph.

Under this rejection the examiner has taken the position that the “[t]he specification as originally filed does not provide support for the limitation that the cross-section of the bulgy areas is non-hollow.”

A copy of Fig. 2 which was originally stated to be a sectional view of Fig. 1 taken along section lines A-A is presented as follows:



The examiner will note that bulgy zones 2a are depicted as being solid or non-hollow.

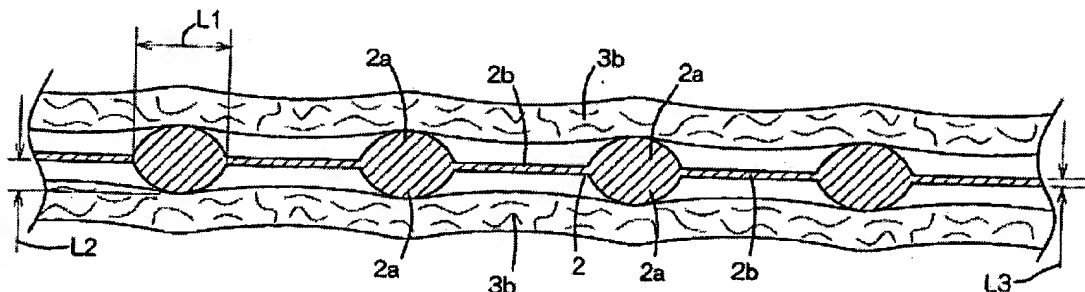
Also an enlarged portion of Fig. 1 is presented as follows:



The examiner will note that the bulgy zones are depicted as being solid or non-hollow throughout the composite sheet.

Further, a copy of Fig. 5 which was originally stated to be a sectional view of Fig. 4 taken along section lines B-B is presented as follows:

**FIG.5**





Again, the examiner will note that the bulgy zones are depicted as being solid or non-hollow throughout the composite sheet.

It is accordingly submitted that the original specification (which includes the originally filed drawings) supports the recitation in claims 12, 14 and 16 that the “plurality of bulgy structural zones are non-hollow.”

It is noted that 35 U.S.C. §112, first paragraph requires that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

It is submitted that Appellant’s specification includes a written description that would enable one skilled in the art to make the bulgy zones non-hollow or solid.

Therefore the limitations of claims 12, 14 and 16 are believed to satisfy the requirements of 35 U.S.C. §112, first paragraph.

Appellant respectfully urges that claims 1-19 patentably distinguish from the applied reference combination as the claimed subject matter is neither anticipated as required under 35 U.S.C. §102(b) nor would have been obvious within the meaning of 35 U.S.C. §103(a).

The examiner has relied upon McCormack et al. as disclosing:

...a laminate of two or more layers. One of the layers may be elastic. One of the layers may comprise a thermoplastic film and one may comprise a nonwoven fabric. The thermoplastic file may be breathable. See col. 4, line 53 - col. 5, line 65. The two layers are bonded together so that a plurality of bulges form continuously across

the surface of the laminate. The bonds may be lines which extend in parallel across the laminate. See figure 1 and also col. 7, lines 1-3.

Appellant had previously argued that the examiner did not indicate the structure of McCormack et al. which reads on Appellant's claimed "substantially flat zones defined between adjacent ones of the bulgy structural zones."

In response to Appellant's arguments in the paragraph bridging pages 2 and 3 of the Official Action of December 22, 2004 (the Final Rejection) the examiner stated:

Applicant argues that the portion of the structure of McCormack which corresponds to the substantially flat zones were not pointed out in the previous action. However, the areas which form the bonds correspond to the substantially flat zones. The bonding can be in the form of lines which extend in parallel across the laminate, see fig. 1 and col. 7, lines 1-3. Further, with regard to McCormack, either of the two layers 12, 14 in fig. 1 can be film or nonwoven. Therefore, the layer 12 can be a nonwoven and layer 14 can be the nonwoven layer. Therefore, the areas where the two or more layers are bonded correspond to the claimed substantially flat zones.

The examiner's interpretation that the areas which form the bonds [in McCormack et al.] correspond to the substantially flat zones is inconsistent with the recited structure in Appellant's independent claims.

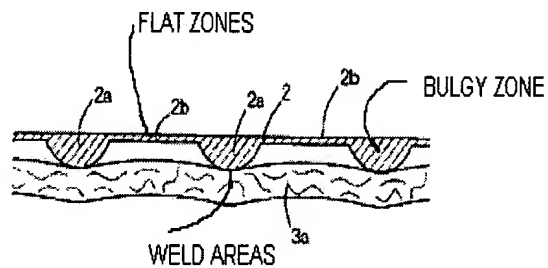
Accordingly, by the examiner's own interpretation McCormack et al. fails to render Appellant's claimed invention obvious.

Each of Appellant's independent claims 1, 9 and 10 requires, in part:

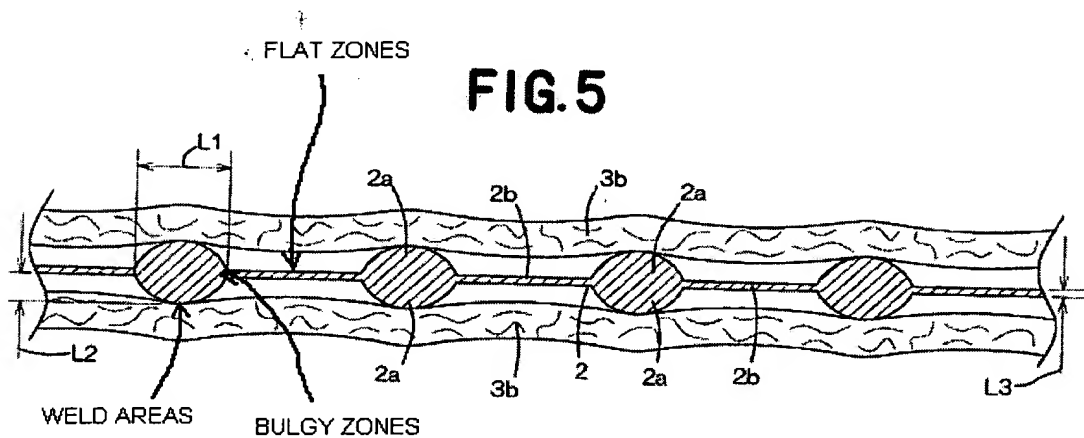
1) "substantially flat zones extending continuously between adjacent ones of the bulgy structural zones;" and

2) "said thermoplastic synthetic resin film being welded along said bulgy structural zones to said thermoplastic synthetic resin fibrous sheet."

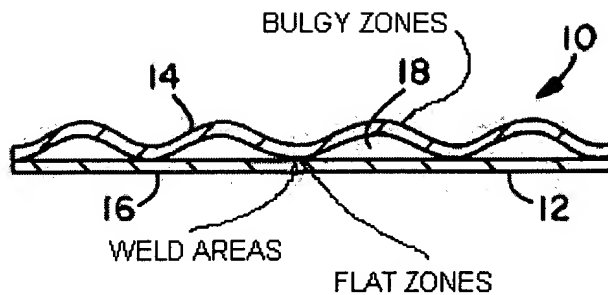
These limitations are consistent with Appellant's Fig. 2:



And Appellant's Fig. 5:



If one attempted to apply the examiner's interpretation of McCormack et al. using Appellant's claim language the following would result:



Since the examiner has interpreted that the areas which form the bonds [in McCormack et al.] correspond to the substantially flat zones, they necessarily correspond to Appellant's weld zones (since these are the only points of contact between the two layers).

However, Appellant's independent claims 1, 9 and 10 each requires, in part:

- 1) "substantially flat zones extending continuously between adjacent ones of the bulgy structural zones;" and
- 2) "said thermoplastic synthetic resin film being welded along said bulgy structural zones to said thermoplastic synthetic resin fibrous sheet."

If, according to Appellant's claim limitations, the flat zones are between adjacent bulgy zones and the layers are welded at (or along) the bulgy zones, then the flat zones cannot correspond to the weld zone (the outcome of the examiner's interpretation of McCormack et al.) or else they would correspond to the bulgy zones and therefore not be "between adjacent ones of the bulgy structural zones" as required by Appellant's independent claim 1.

It therefore follows that the examiner's interpretation of McCormack et al. is inconsistent with the recited structure in Appellant's independent claim 1.

McCormack et al. according to the examiner's interpretation, fails to meet the limitations of Appellant's independent claims and therefore does not anticipate Appellant's claimed invention.

The examiner has relied upon Thornton et al as teaching a polyurethane film having a specific WVTR.

This further reliance upon Thornton et al. does not address or overcome the structural differences and distinctions between Appellant's claimed invention and McCormack et al.

Accordingly, the combination of McCormack et al. and Thornton et al. does not render Appellant's claimed invention obvious under 35 U.S.C. §103.

The examiner has cited Reed et al. on page 3 of the Official Action as being relied upon in combination with McCormack et al. and Thornton et al.

However, the examiner has not set forth any specific reliance upon Reed et al. nor any proposed modification of McCormack et al. based upon the teachings of Reed et al.

## CONCLUSION

For the reasons advanced above, Appellant submits that claims 12, 14 and 16 satisfy the requirements of 35 U.S.C. §112, first paragraph.

For the reasons advanced above, Appellant respectfully contends that the rejection of claims 1, 2, 4, 9 and 10, 11, 13 and 15 stand rejected under 35 U.S.C. §102(b) as being anticipated by

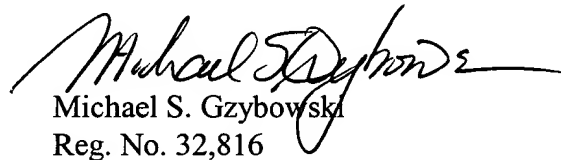
McCormack et al. is improper because the examiner has not met the burden of establishing that McCormack et al. anticipates Appellant's claimed invention.

Further, for the reasons advanced above, Appellant respectfully contends that the rejection of claims 1-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over McCormack et al. in view of Thornton et al. in view of Reed et al. is improper because the examiner has not met the burden of establishing a *prima facie* case of obviousness.

Reversal of the rejection on appeal is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



Michael S. Gzybowski  
Reg. No. 32,816

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CLAIMS APPENDIX

Claim 1 (Previously presented): A composite sheet comprising:

a substantially non-porous and moisture-pervious thermoplastic synthetic resin film having an upper and a lower surface;

a thermoplastic synthetic resin fibrous sheet bonded to at least one of the upper and lower surfaces of said thermoplastic synthetic resin film;

a plurality of bulgy structural zones formed on a surface of the thermoplastic synthetic resin film that is opposed to said thermoplastic synthetic resin fibrous sheet, the plurality of bulgy structural zones extending continuously in one direction in parallel and substantially uniformly spaced apart from one another; and

said thermoplastic synthetic resin film having substantially flat zones extending continuously between adjacent ones of the bulgy structural zones,

said thermoplastic synthetic resin film being welded along said bulgy structural zones to said thermoplastic synthetic resin fibrous sheet.

Claim 2 (Previously presented): The composite sheet according to Claim 1, wherein said thermoplastic synthetic resin film comprises a thermoplastic elastomer resin.

Claim 3 (Previously presented): The composite sheet according to Claim 2, wherein said thermoplastic elastomer resin is a member selected from the group consisting of urethane-based,

ester-based and amide-based thermoplastic elastomer resins and said thermoplastic synthetic resin film is substantially non-porous and moisture-pervious.

Claim 4 (Previously presented): The composite sheet according to Claim 1, wherein said thermoplastic synthetic resin fibrous sheet comprises a fibrous nonwoven fabric made of thermoplastic synthetic resin fibers.

Claim 5 (Previously presented): The composite sheet according to Claim 4, wherein said fibrous nonwoven fabric comprises an elastically stretchable nonwoven fabric obtained by melt-spinning thermoplastic elastomer resin and said thermoplastic synthetic resin film is bonded along the bulgy structural zones to said elastically stretchable nonwoven fabric in an untensioned state.

Claim 6 (Previously presented): The composite sheet according to Claim 11, wherein each of said bulgy structural zones has a width of from about 0.2 to about 2.0 mm and a maximum thickness of from about 40 to about 150  $\mu\text{m}$  and each of said flat zones has a thickness of from about 5 to about 100  $\mu\text{m}$ .

Claim 7 (Previously presented): The composite sheet according to Claim 1, wherein said composite sheet has a water-resistance of 49 hpa or higher as measured in accordance with JIS 1092A.



Claim 8 (Previously presented): The composite sheet according to Claim 1, wherein said composite sheet has a moisture-permeability of  $3000 \text{ g/m}^2 \cdot 24 \text{ Hr}$  or higher as measured in accordance with JIS L 1099A.

Claim 9 (Previously presented): A composite sheet comprising:

- a thermoplastic synthetic resin fibrous sheet;

- a thermoplastic synthetic resin film bonded to the thermoplastic synthetic resin fibrous sheets to form a composite sheet having a substantially flat exposed surface defined by the thermoplastic synthetic resin film;

- a plurality of bulgy structural zones formed on a surface of the thermoplastic synthetic resin film that is opposed to said thermoplastic synthetic resin fibrous sheet, the plurality of bulgy structural zones extending continuously in one direction in parallel and spaced substantially uniformly apart from one another; and

- said thermoplastic synthetic resin film having substantially flat zones extending continuously between adjacent ones of the bulgy structural zones,

- said thermoplastic synthetic resin film being welded along said bulgy structural zones to said thermoplastic synthetic resin fibrous sheet.

Claim 10 (Previously presented): A composite sheet comprising:

- an imperforated thermoplastic synthetic resin film having an upper and a lower surface;

a thermoplastic synthetic resin fibrous sheet bonded to at least one of the upper and lower surfaces of said thermoplastic synthetic resin film;

a plurality of bulgy structural zones formed on a surface of the thermoplastic synthetic resin film that is opposed to said thermoplastic synthetic resin fibrous sheet, the plurality of bulgy structural zones extending continuously in one direction in parallel and spaced substantially uniformly apart from one another; and

said thermoplastic synthetic resin film having substantially flat zones extending continuously between adjacent ones of the bulgy structural zones,

said thermoplastic synthetic resin film being welded along said bulgy structural zones to said thermoplastic synthetic resin fibrous sheet.

Claim 11 (Previously presented): The composite sheet according to Claim 1, wherein said plurality of bulgy structural zones have a cross sectional shape that comprises a flat portion and a curved portion that extends outward from the flat portion.

Claim 12 (Previously presented): The composite sheet according to Claim 11, wherein said plurality of bulgy structural zones are non-hollow.

Claim 13 (Previously presented): The composite sheet according to Claim 9, wherein said plurality of bulgy structural zones have a cross sectional shape that comprises a flat portion and a curved portion that extends outward from the flat portion.

Claim 14 (Previously presented): The composite sheet according to Claim 13, wherein said plurality of bulgy structural zones are non-hollow.

Claim 15 (Previously presented): The composite sheet according to Claim 10, wherein said plurality of bulgy structural zones have a cross sectional shape that comprises a flat portion and a curved portion that extends outward from the flat portion.

Claim 16 (Previously presented): The composite sheet according to Claim 15, wherein said plurality of bulgy structural zones are non-hollow.

Claim 17 (Previously presented): The composite sheet according to Claim 1, wherein said plurality of bulgy structural zones have solid cross sectional shapes that comprise opposed curved portions that extend outward from one another.

Claim 18 (Previously presented): The composite sheet according to Claim 9, wherein said plurality of bulgy structural zones have solid cross sectional shapes that comprise opposed curved portions that extend outward from one another.

Claim 19 (Previously presented): The composite sheet according to Claim 10, wherein said plurality of bulgy structural zones have solid cross sectional shapes that comprise opposed curved portions that extend outward from one another.